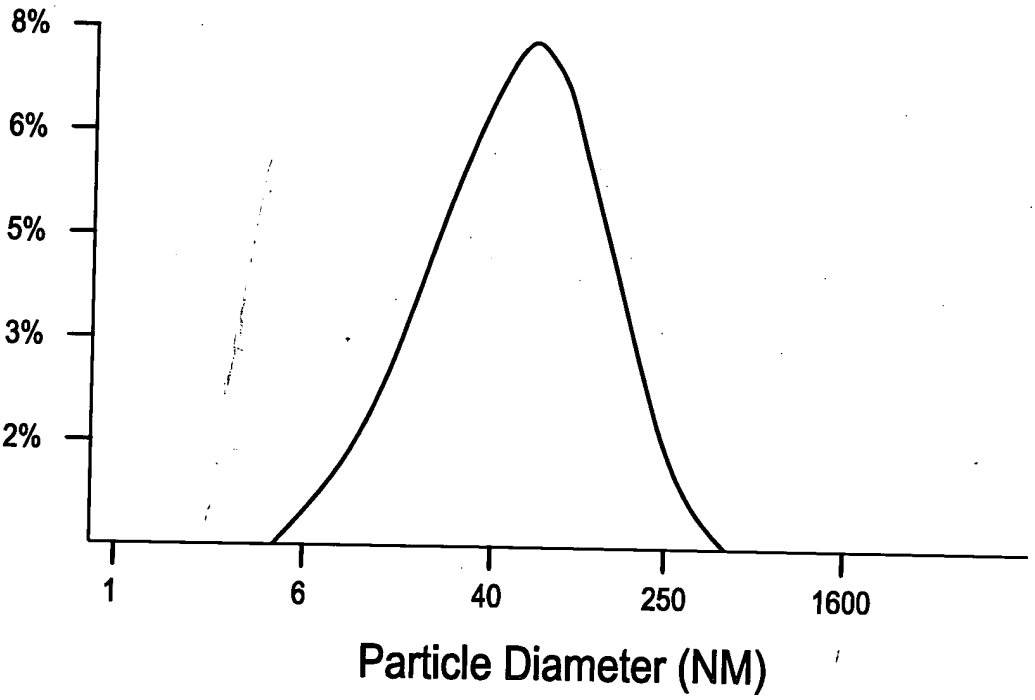
FIG. 1



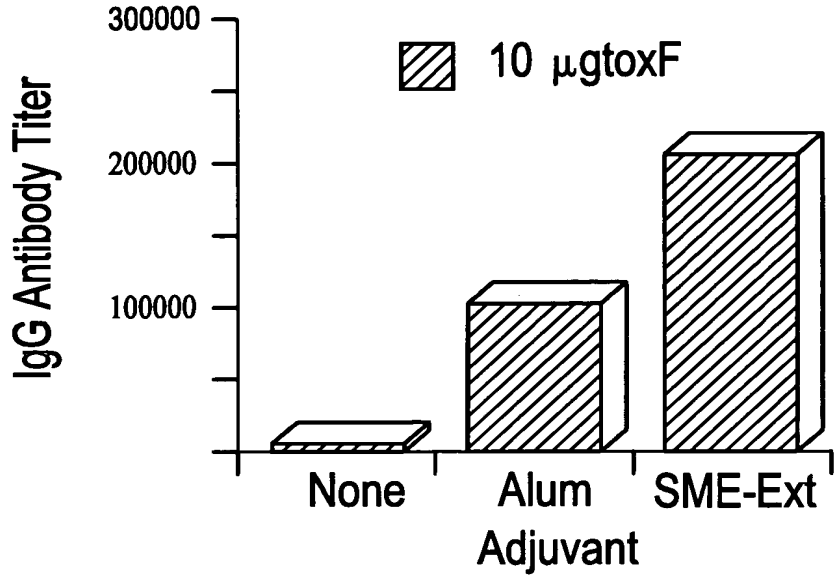


FIG. 2A

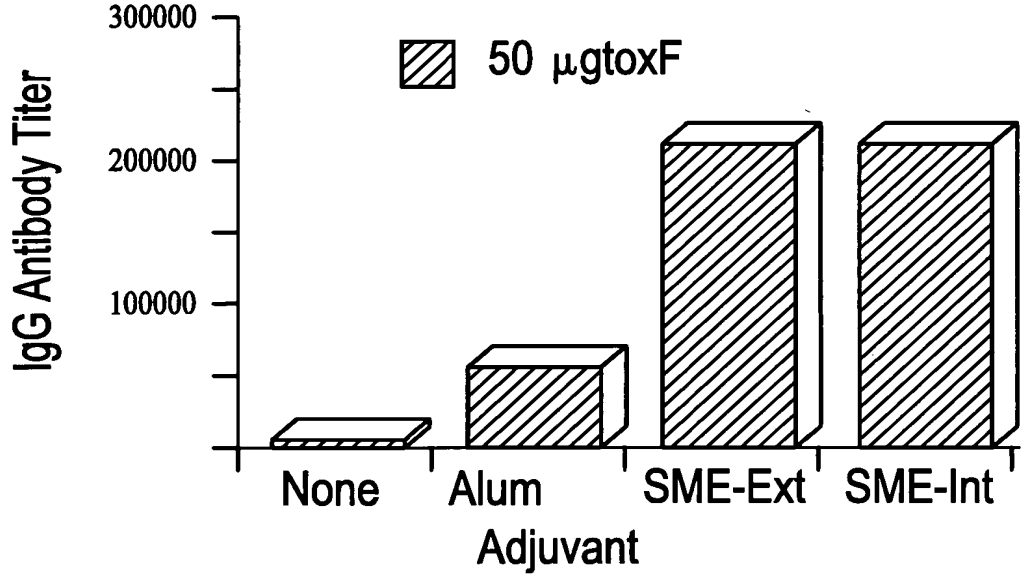


FIG. 2B

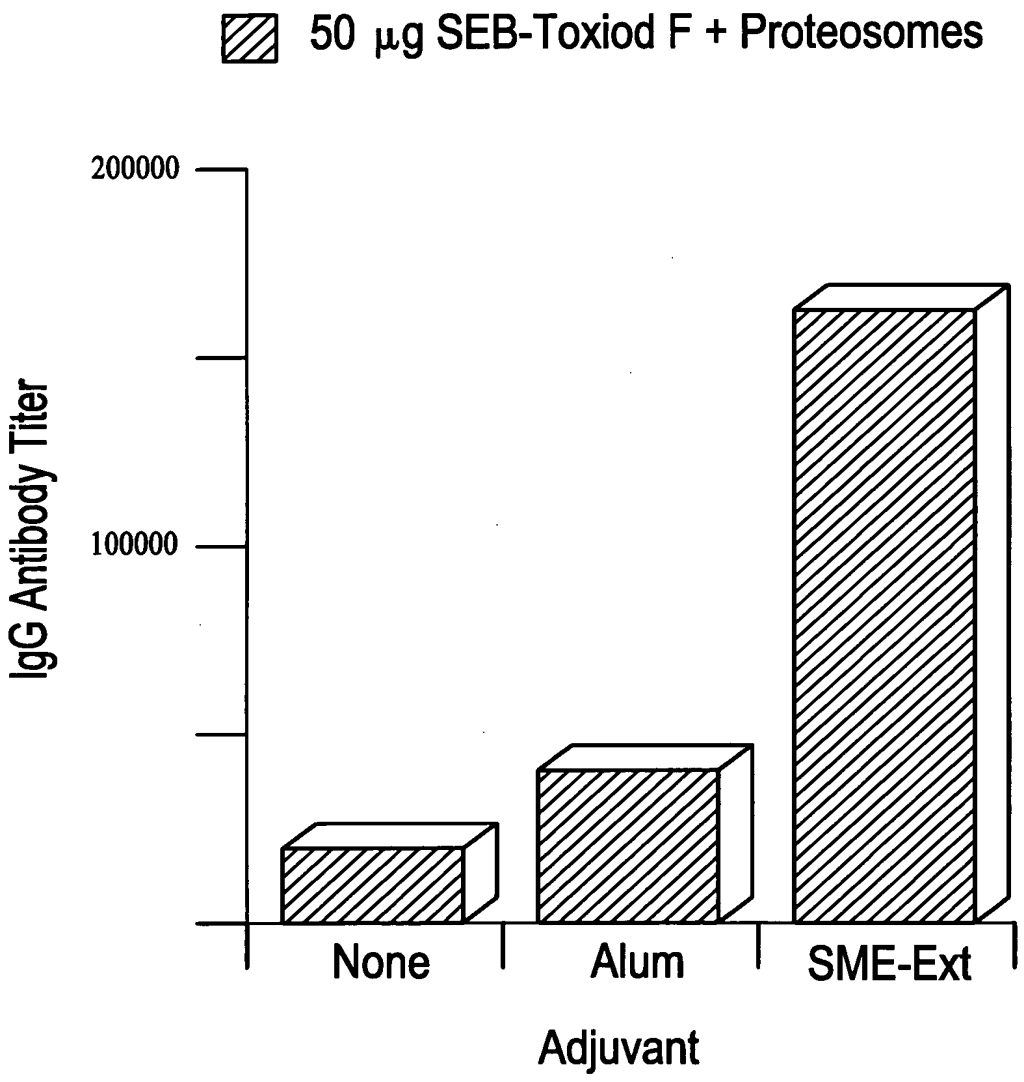


FIG. 3

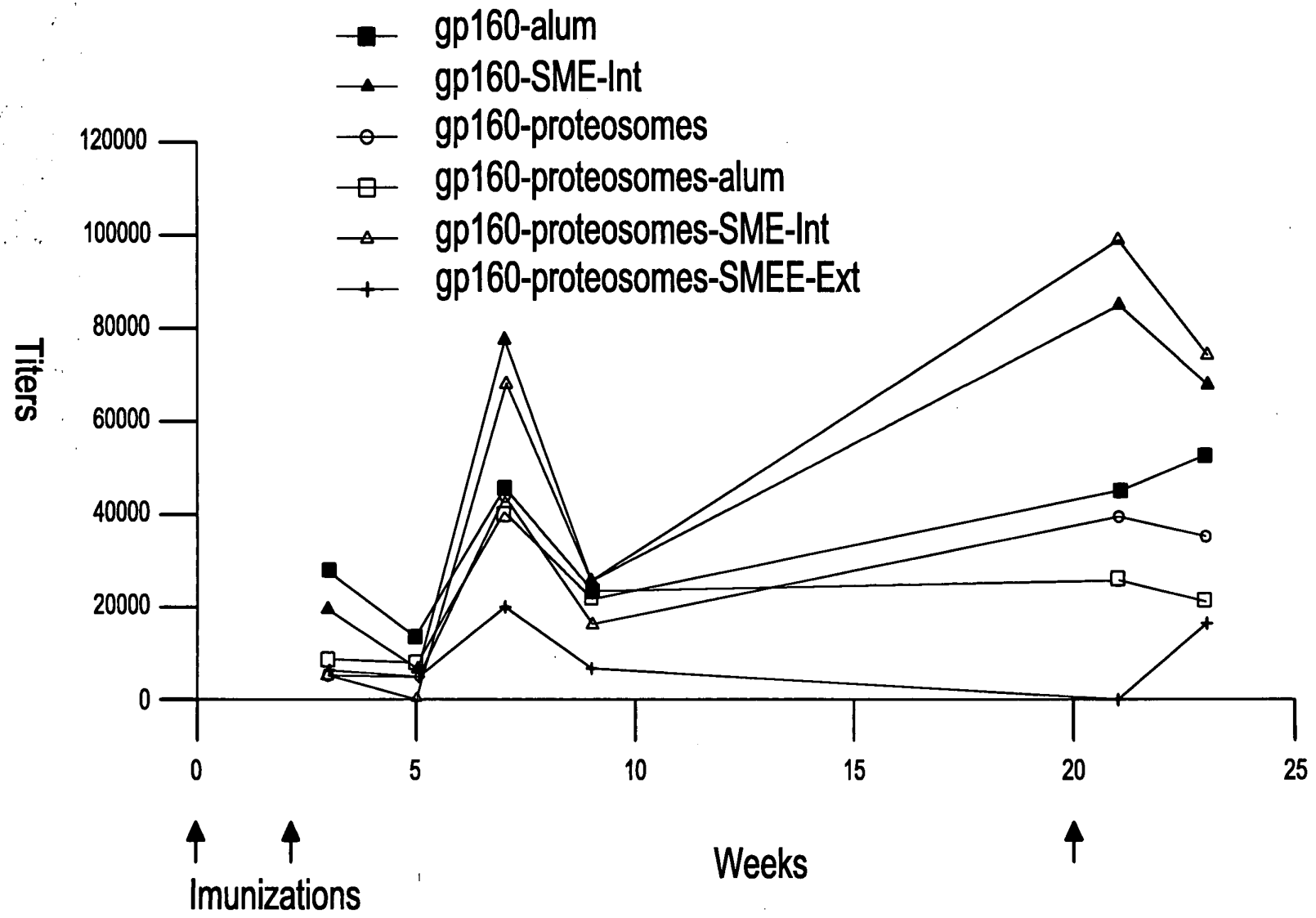


FIG. 4

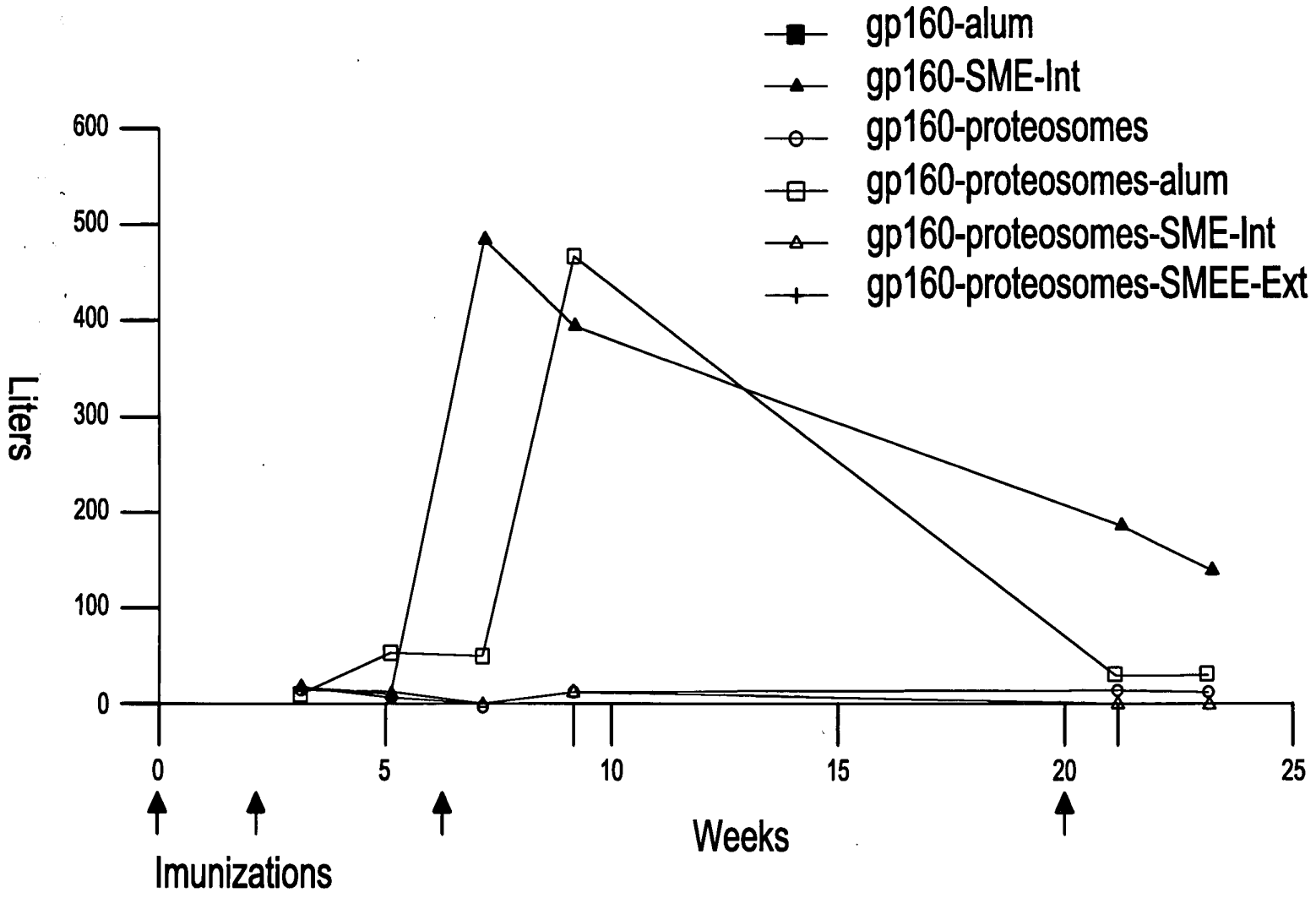
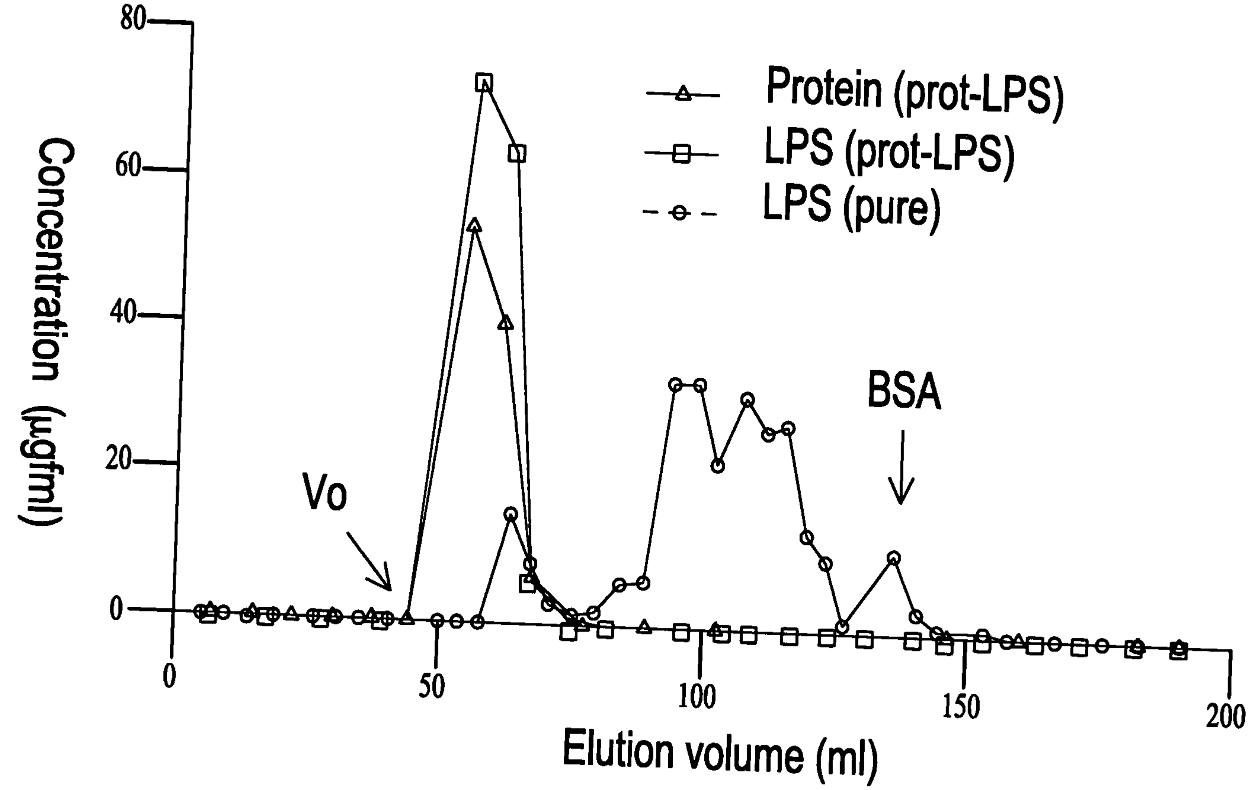


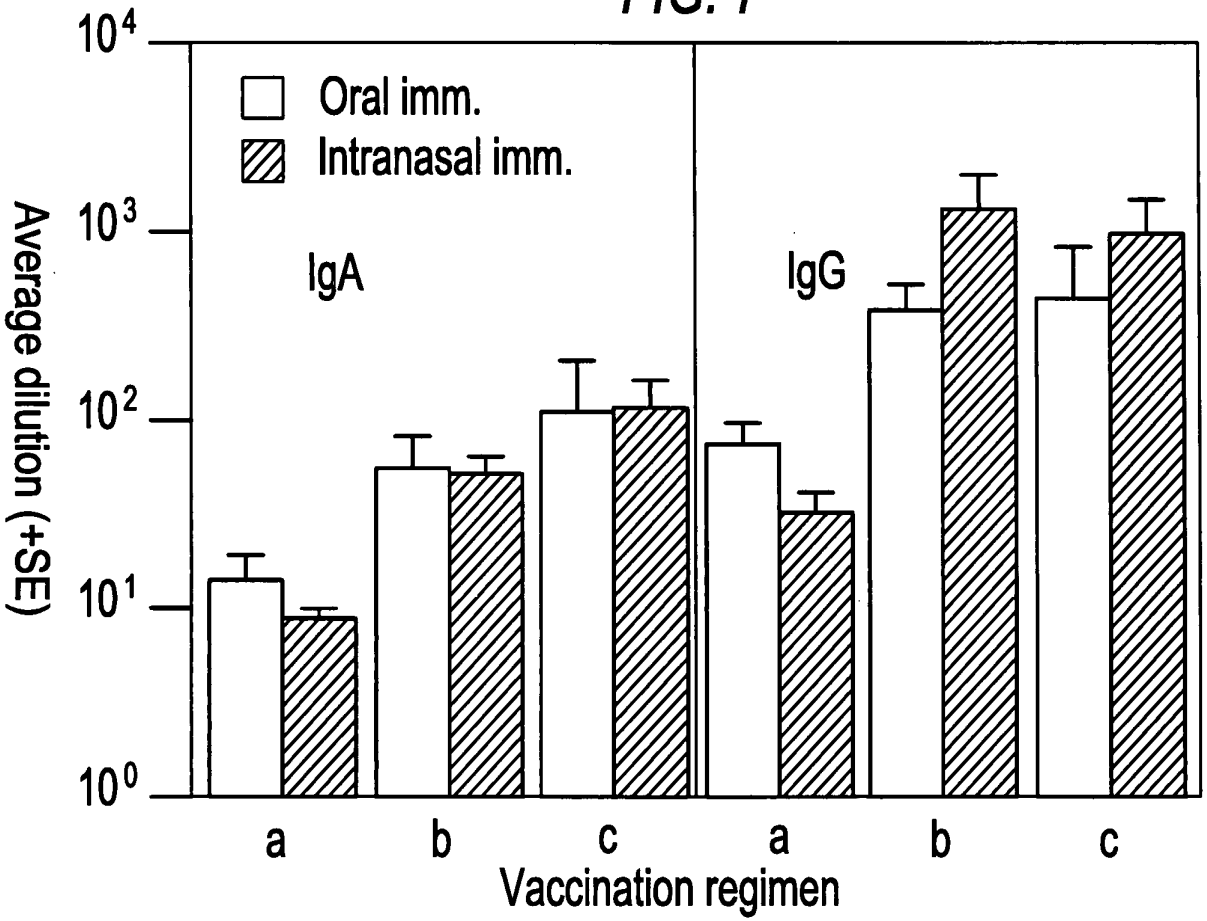
FIG. 5



Protein and LPS levels in fractions eluted from a CL-4B column after application of the prot-S. flexneri 2a LPS complex and LPS levels in column fractions after application of S. flexneri 2a LPS alone.

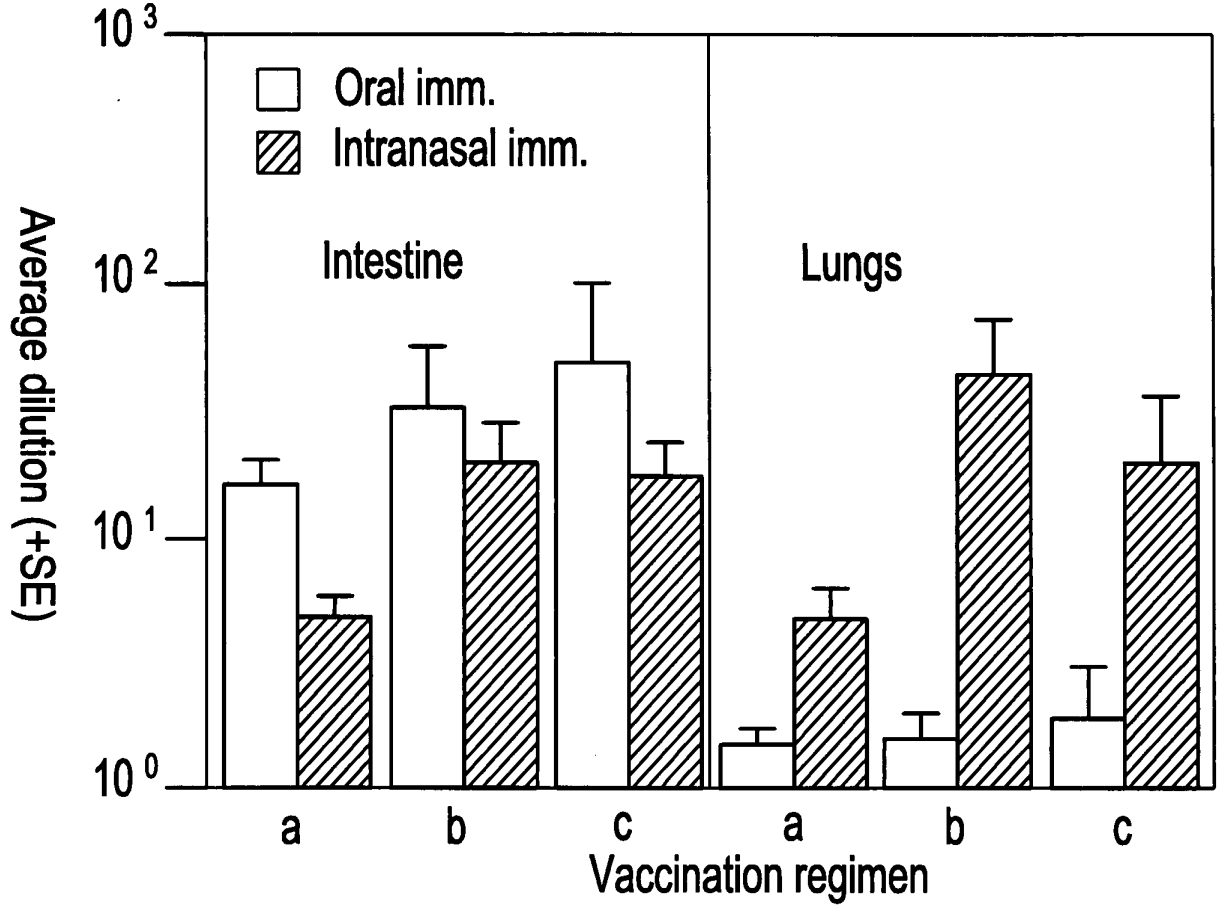
FIG. 6

FIG. 7



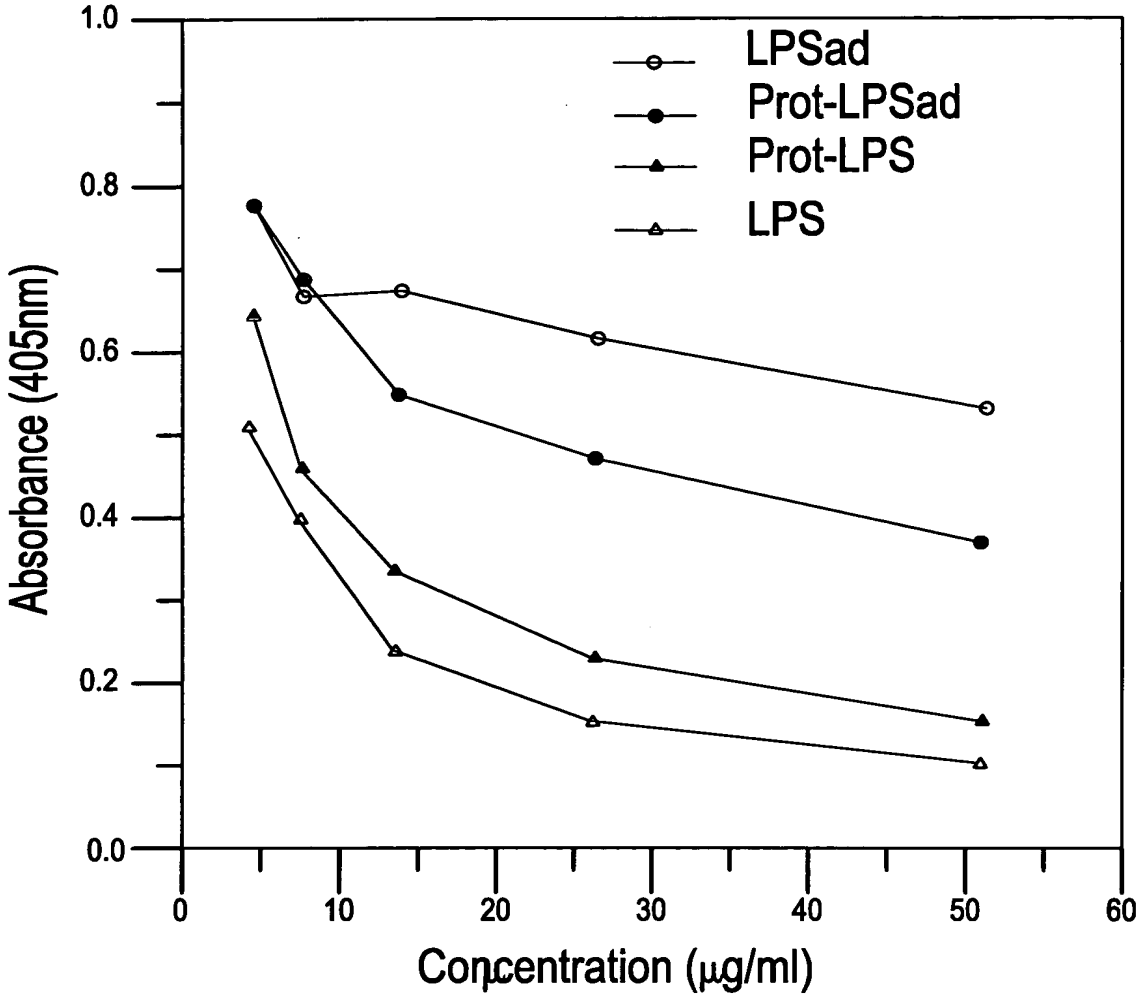
Anti-LPS IgG and IgA in sera of mice immunized either orally or intranasally with prot-LPS complex. Four or five animals were immunized either with two doses at 0 and 1 weeks (a), with two doses at 0 and 3 weeks (b), or with three doses at 0, 1, and 4 weeks (c). The results are expressed as the geometric mean of the maximal dilution elicited an optical density greater than 0.5 after 1 h of incubation with substrate.

FIG. 8



Anti-LPS IgA in intestines and lungs of mice immunized either orally or intranasally with prot-LPS complex as described in the legend to Fig. 3. The results are expressed as the geometric mean of the maximal dilution elicited an optical density greater than 0.5 (intestines) or 0.2 (lungs) after 2 h of incubation with substrate.

FIG. 9



Inhibition of specific antibody binding to solid-phase S flexneri 2a LPS in ELISA. LPSad, prot-LPSad, LPS, or prot-LPS was incubated with LPS-positive guinea pig serum prior to its application to an ELISA.